



4-PORT KVM Switch

NEWSTAR
computerproducts
www.newstar.nl

NS-411K
User Manual



Made in Taiwan

TABLE OF CONTENTS

INTRODUCTION -----	P1
FEATURES -----	P1
SPECIFICATIONS-----	P2
PACKAGE CONTENTS-----	P2
HARDWARE INSTALLATION-----	P3
FRONT PANEL LAYOUT-----	P3
REAR PANEL LAYOUT -----	P3
HARDWARE INSTALLATION-----	P4
USING THE NS-411K -----	P7
SELECT BUTTON-----	P7
KEYBOARD HOT KEY COMMANDS-----	P7
TROUBLESHOOTING-----	P9
KEYBOARD-----	P9
MOUSE-----	P9
VIDEO-----	P9

Introduction

Thank you for purchasing the NEWSTAR KVM Switch, this product will ensure easy and accurate control over 4 PCs through a single console. The KVM Switch is compatible with PS/2 style computers and comes with advanced features. It has keyboard and mouse emulation for error free boot-ups and support is also provided for the Microsoft Intellimouse. The KVM Switch supports high resolutions up to 2048 x 1536 without any deterioration of the image quality. Switching between PCs can be accomplished in two ways: through keyboard Hot Key commands or by using the convenient front-panel Select push button controls. No other KVM switch allows you to control 4 computers from a single console this conveniently.

Features

- ◆ Allows a user to control 4 computers from one console.
- ◆ Works with Windows 95/98/2000/ME/NT/XP, Free BSD.
- ◆ No drivers or other additional software required.
- ◆ Keyboard and mouse emulation ensures error-free boot-up.
- ◆ The status of the CAPS LOCK, SCROLL LOCK and NUM LOCK keys is stored for each of the computers.
- ◆ Uses inexpensive and commonly available cables.
- ◆ Supports Monitor resolutions of up to 2048 x 1536.
- ◆ Supports VGA, SVGA and Multisync monitors.
- ◆ Select push-button or keyboard Hot Key control.
- ◆ Comes with Auto-Scan mode for convenient automatic switching.
- ◆ Front panel status LEDs give a clear indication of the active PC.

Specifications

Physical Properties:

Width: 119mm
 Height: 46mm
 Depth: 105mm
 Weight: 727g

Operation and Storage parameters:

Operating Temperature: 0~40 Degrees C (32 to 104 Degrees F)
 Storage Temperature: -20~60 Degrees C (-4~140 Degrees F)
 Humidity: 0~80% RH non condensing

PC port connections

Keyboard: Mini DIN 6 pin Female
 Mouse: Mini DIN 6 pin Female
 Monitor: HDDB 15 pin Female

Console connections

Keyboard: Mini DIN 6 pin Female
 Mouse: Mini DIN 6 pin Female
 Monitor: HDDB 15 pin Female

Package Contents

Item	QTY	Remark
NS-411K	1 piece	KVM Switch
User Manual	1 piece	
KVM Cable	4 pieces	

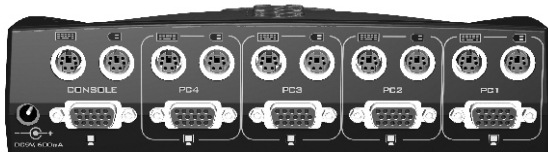
Hardware Installation

The layout of front and rear panel are shown below.

Front Panel Layout



Rear Panel Layout

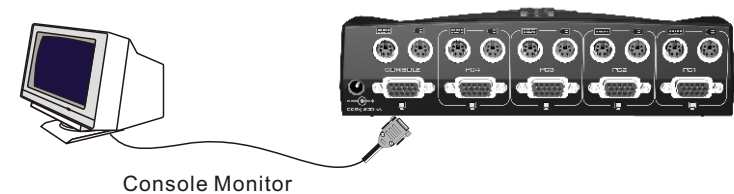


Hardware Installation

Please follow the steps below closely and in the order as shown, Otherwise keyboard and/or mouse errors may occur.

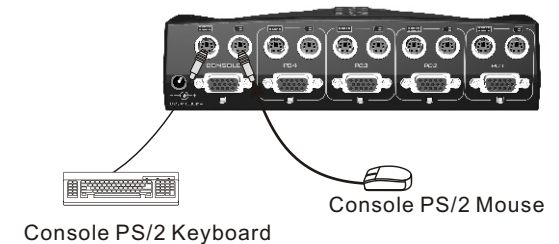
Before connecting your computers and console devices to the NS-411K, make sure that everything is powered off. Connecting devices while power is not off may cause damage to your computers or the NS-411K. NEWSTAR Corporation will not be held responsible for damage caused in this manner.

1. Place the NS-411K in a convenient location, its small size makes it easy to place on a desktop. Take the length of the cables in consideration while placing the KVM switch unit.
2. Connect the console devices first. Connect your monitor to the NS-411K. The 15-pin connector coming from your monitor must be inserted into the unit on the rear panel. Connect it to the 15 pin HDDB connector labeled 'MONITOR' as shown below.



Console Monitor

3. Connect your PS/2 keyboard and PS/2 mouse to the rear panel of the NS-411K. The connections should be made to the two 6-pin Mini DIN connectors Labeled 'CONSOLE' as shown below.

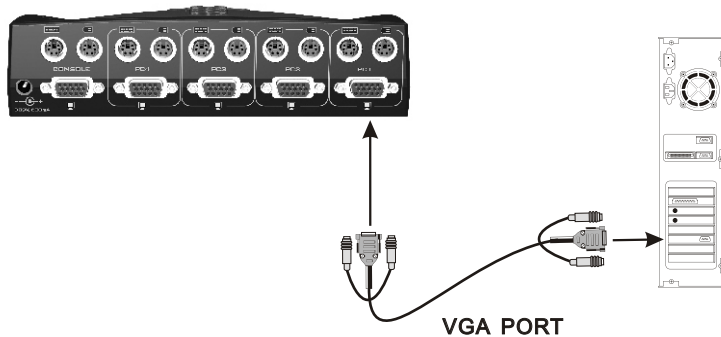


Console PS/2 Keyboard

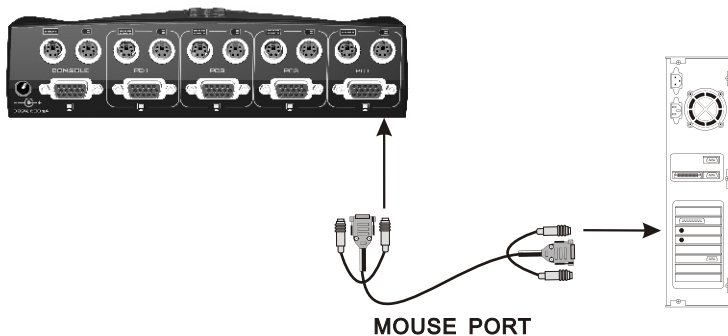
Console PS/2 Mouse

Hardware Installation

4. Connect a VGA cable (15-pin HDDB Male/ Male) with the Male side to both the PC and the rear panel of the NS-411K unit to the connector labeled VGA. Repeat this for all PCs.

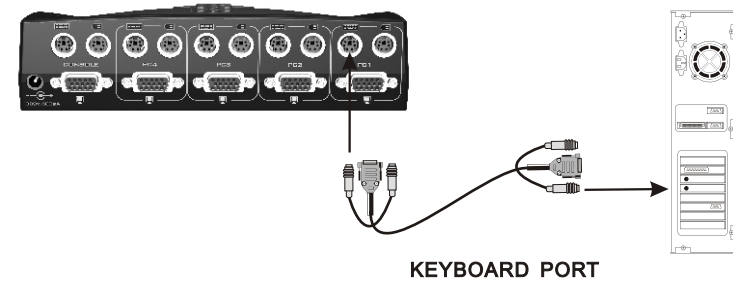


5. Connect a mouse cable (6-pin Mini DIN Male/ Male) to the PC and the rear panel of the NS-411K unit to the connector with the mouse symbol. Repeat this for all PC.



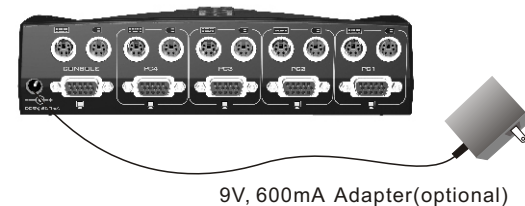
Hardware Installation

6. Connect a keyboard cable (6-pin Mini DIN Male / Male) to the PC and to the rear panel of the NS-411K unit to the connector with the keyboard symbol. Repeat this for all PCs.



7. Now make sure to verify all cables, keyboard and mouse cables should be checked carefully because they are easily switched due to use of the same type of connector. Repeat this for all PCs.

8. Attach the power supply to the NS-411K unit and plug it into a power supply. Now you will see the LED for Port 1 light up, and you will hear a beep. Switch on your monitor.



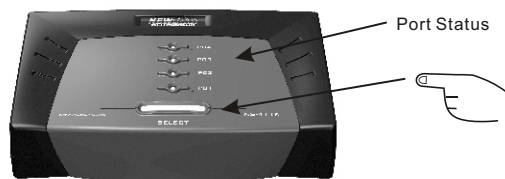
9. Now power up all computers simultaneously, the first computer will be shown on the monitor. You may check if the mouse and keyboard work after the system has booted up. If this is OK, use the Select button to select the other computer and verify the functionality in the same way. In case you find errors, first check all cables for proper connections.

Using the NS-411K

The NS-411K switch unit provides two ways to select which computer is the active system. Use either the Select button on the unit, or make use of the keyboard Hot key commands. You may notice that the mouse can not be used for around 2 seconds when the NS-411K switches to another computer. This is normal and is caused by synchronization that makes sure the mouse operates properly.

Select Button

Pressing the Select button cycles through computers 1 ~ 4 Port



Keyboard Hot Key commands

To send Hot Key commands to the NS-411K unit, press the SCROLL LOCK Key twice within 2 seconds. Now you will be given a beep as confirmation, now press a command key to give a Hot Key command. The following commands are supported:

First Key	Second Key	Third Key	Command
SCROLLLOCK	SCROLLLOCK	1	Switch to First PC
SCROLLLOCK	SCROLLLOCK	2	Switch to Second PC
SCROLLLOCK	SCROLLLOCK	3	Switch to Third PC
SCROLLLOCK	SCROLLLOCK	4	Switch to Fourth PC
SCROLLLOCK	SCROLLLOCK	↑	Switch to Previous PC
SCROLLLOCK	SCROLLLOCK	↓	Switch to Next PC
SCROLLLOCK	SCROLLLOCK	0	Go to Auto-Scan mode

In Auto-Scan mode the NS-411K unit will switch to the next computer every 10 seconds. This means that all computers will be shown on the monitor in a row, starting with the first computer after the last one has been shown.

To prevent errors, there is no mouse or keyboard control in this mode. Erratic input will result if the mouse is moved or the keyboard key is pressed while the unit switches to the next computer.

To exit Auto-Scan mode press the SPACE BAR. The NS-411K will stop at the last computer shown.

Troubleshooting

Keyboard

My keyboard is not detected, or a keyboard error is given during boot-up.

- ◆ Please verify that the keyboard cables are inserted properly.
- ◆ Check to make sure that the power cord is plugged in and is working properly.

The computers all boot up properly, but the keyboard is not functional.

- ◆ Make sure the keyboard is plugged into the NS-411K unit properly.
- ◆ Verify that the keyboard works when plugged into the computer directly. (You will have to shut down your computer first to do this).
- ◆ Try using a different keyboard.
- ◆ Make sure that the power adapter is plugged into the mains and that it is working correctly. Its rating must be DC9V, 600mA.

Mouse

My mouse is not detected during boot up.

- ◆ Please verify that all mouse cables are inserted properly. Check especially for a mix-up with the PS/2 keyboard cable, they have the same kind of connector and are therefore easily confused.
- ◆ Read your motherboard documentation and make sure that the PS/2 mouse IRQ is enabled. (This can for most computers be set in the BIOS setup pages)

The computers boot properly but I can not use the mouse.

- ◆ Please verify that the mouse is plugged into the NS-411K unit properly.
- ◆ Make sure the mouse works proper when plugged into a computer directly, you will need to reboot the system to test this.
- ◆ Try using a different mouse.

- ◆ Verify that the mouse complies with the PS/2 standard. A combination mouse will work, but it must be set to PS/2 mode and the correct serial mouse to PS/2 adapter must be used. A serial mouse with a serial - PS/2 adapter will not work, since the mouse signals do not comply with the PS/2 standard.
- ◆ Make sure that the power adapter is plugged into the mains and that it is working correctly. Its rating must be DC9V 600mA.

When I switch between computers mouse movement becomes random.

- ◆ Verify that your computers do not have more than one mouse driver installed. Make sure that the driver is for a standard PS/2 or Microsoft compatible PS/2 mouse. Also check with the mouse vendor to verify you are using the latest mouse driver.
- ◆ Check your config.sys and autoexec.bat files (if you run Windows) and verify that only one mouse driver is loaded.
- ◆ If a special mouse is used, such as cordless or scrolling mice, make sure you use generic PS/2 mouse drivers. A non-standard PS/2 mouse may have extensions on the PS/2 protocol that are not supported by the NS-411K unit.
- ◆ Do not move the mouse or press any mouse buttons while switching from one system to the other.
- ◆ Try resetting the mouse by unplugging it from the KVM4C unit for about 3 seconds. Now mouse movement will be correct again.
- ◆ Before booting up any PCs, the NS-411K unit must be powered-up. But before powering the NS-411K unit up, the mouse and keyboard must be connected first. Any deviation from this power-up sequence may lead to erratic behavior of the systems.

Video**The image on my monitor is not clear.**

- ◆ Please verify that all video cables are inserted properly.
- ◆ It may be that your resolution or refresh rate is too high. Try a lower refresh rate, or try lowering the resolution.
- ◆ Your video cable may be too long. Video signals are high frequency signals and are therefore subject to interference. Please use video cables that are as short as possible.
- ◆ Make sure that the power adapter is plugged into the mains and that it is working correctly. Its rating must be DC9V,600mA.

FCC Certifications

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- ◆ Reorient or relocate the receiving antenna.
- ◆ Increase the separation between the equipment and receiver.
- ◆ Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- ◆ Consult the dealer or an experienced radio/TV technician for help.
- ◆ Shielded interface cables must be used in order to comply with emission limits.
- ◆ You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.
- ◆ This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

CE Mark Warning

This is a Class B product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

VCCI Warning

注意

この装置は、情報処理装置等電波障害自主規制協議会（VCCI）の基準に基づく第一種情報技術装置です。この装置を家庭環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。

Limited Warranty

NEWSTAR provides this limited warranty for its product only to the person or entity who originally purchased the product from NEWSTAR or its authorized reseller or distributor.

Limited Hardware Warranty:

NEWSTAR warrants that the hardware portion of the NEWSTAR products described below (Hardware) will be free from material defects in workmanship and materials from the date of original retail purchase of the Hardware, for the period set forth below applicable to the product type (Warranty Period) if the Hardware is used and serviced in accordance with applicable documentation; provided that a completed Registration Card is returned to an Authorized NEWSTAR Service Office within ninety (90) days after the date of original retail purchase of the Hardware. If a completed Registration Card is not received by an authorized NEWSTAR Service Office within such ninety (90) period, then the Warranty Period shall be ninety (90) days from the date of purchase.

Product Type	Warranty Period
Product (excluding power supplies and fans)	Three (3) Years
Power Supplies and Fans	One (1) Year
Spare parts and spare kits	Ninety (90) days

NEWSTAR's sole obligation shall be to repair or replace the defective Hardware at no charge to the original owner. Such repair or replacement will be rendered by NEWSTAR at an Authorized NEWSTAR Service Office. The replacement Hardware need not be new or of an identical make, model or part; NEWSTAR may in its discretion may replace the defective Hardware (or any part thereof) with any reconditioned product that NEWSTAR reasonably determines is substantially equivalent (or superior) in all material respects to the defective Hardware. The Warranty Period shall extend for an additional ninety (90) days after any repaired or replaced Hardware is delivered. If a material defect is incapable of correction, or if NEWSTAR determines in its sole discretion that it is not practical to repair or replace the defective Hardware, the price paid by the original purchaser for the defective Hardware will be refunded by NEWSTAR upon return to NEWSTAR of the defective Hardware. All Hardware (or part thereof) that is replaced by NEWSTAR, or

for which the purchase price is refunded, shall become the property of NEWSTAR upon replacement or refund.

Governing Law:

This Limited Warranty shall be governed by the Haarlem, city of The Netherlands. Some states do not allow exclusion or limitation of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the foregoing limitations and exclusions may not apply. This limited warranty provides specific legal rights and the product owner may also have other rights which vary from state to state.

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Registration Card

Print, type or use block letters.

Your name: Mr./Ms _____
 Organization: _____ Dept. _____
 Your title at organization: _____
 Telephone: _____ Fax: _____
 Organization's full address: _____
 Country: _____
 Date of purchase (Month/Day/Year): _____

Product Model	Product Serial	* Product installed in type of computer	* Product installed in computer serial Number

(* Applies to adapters only)

Product was purchased from:

Reseller's name: _____
 Telephone: _____ Fax: _____
 Reseller's full address: _____

Answers to the following questions help us to support your product:

- Where and how will the product primarily be used?**
 Home Office Travel Company Business Home Business Personal Use
- How many employees work at installation site?**
 1 employee 2-9 10-49 50-99 100-499 500-999 1000 or more
- What network protocol(s) does your organization use ?**
 XNS/IPX TCP/IP DECnet Others _____
- What network operating system(s) does your organization use ?**
 COMET LANsmart Novell NetWare NetWare Lite SCO Unix/Xenix PC NFS 3Com 3+Open
 Banyan Vines DECnet Pathwork ☐ Windows NT ☐ Windows NTAS ☐ Windows '95
☐ Others _____
- What network management program does your organization use ?**
☐ D-View ☐ HP OpenView/Windows ☐ HP OpenView/Unix ☐ SunNet Manager ☐ Novell NMS
☐ NetView 6000 ☐ Others _____
- What network medium/media does your organization use ?**
☐ Fiber-optics ☐ Thick coax Ethernet ☐ Thin coax Ethernet ☐ 10BASE-T UTP/STP
☐ 100BASE-TX ☐ 100BASE-T4 ☐ 100VGAnyLAN ☐ Others _____
- What applications are used on your network?**
☐ Desktop publishing ☐ Spreadsheet ☐ Word processing ☐ CAD/CAM
☐ Database management ☐ Accounting ☐ Others _____
- What category best describes your company?**
☐ Aerospace ☐ Engineering ☐ Education ☐ Finance ☐ Hospital ☐ Legal ☐ Insurance/Real Estate
☐ Manufacturing ☐ Retail/Chainstore/Wholesale ☐ Government
☐ Transportation/Utilities/CommunicationVAR ☐ System house/company
☐ Other _____
- Would you recommend your NEWSTAR product to a friend?**
☐ Yes ☐ No ☐ Don't know yet
- Your comments on this product?**
